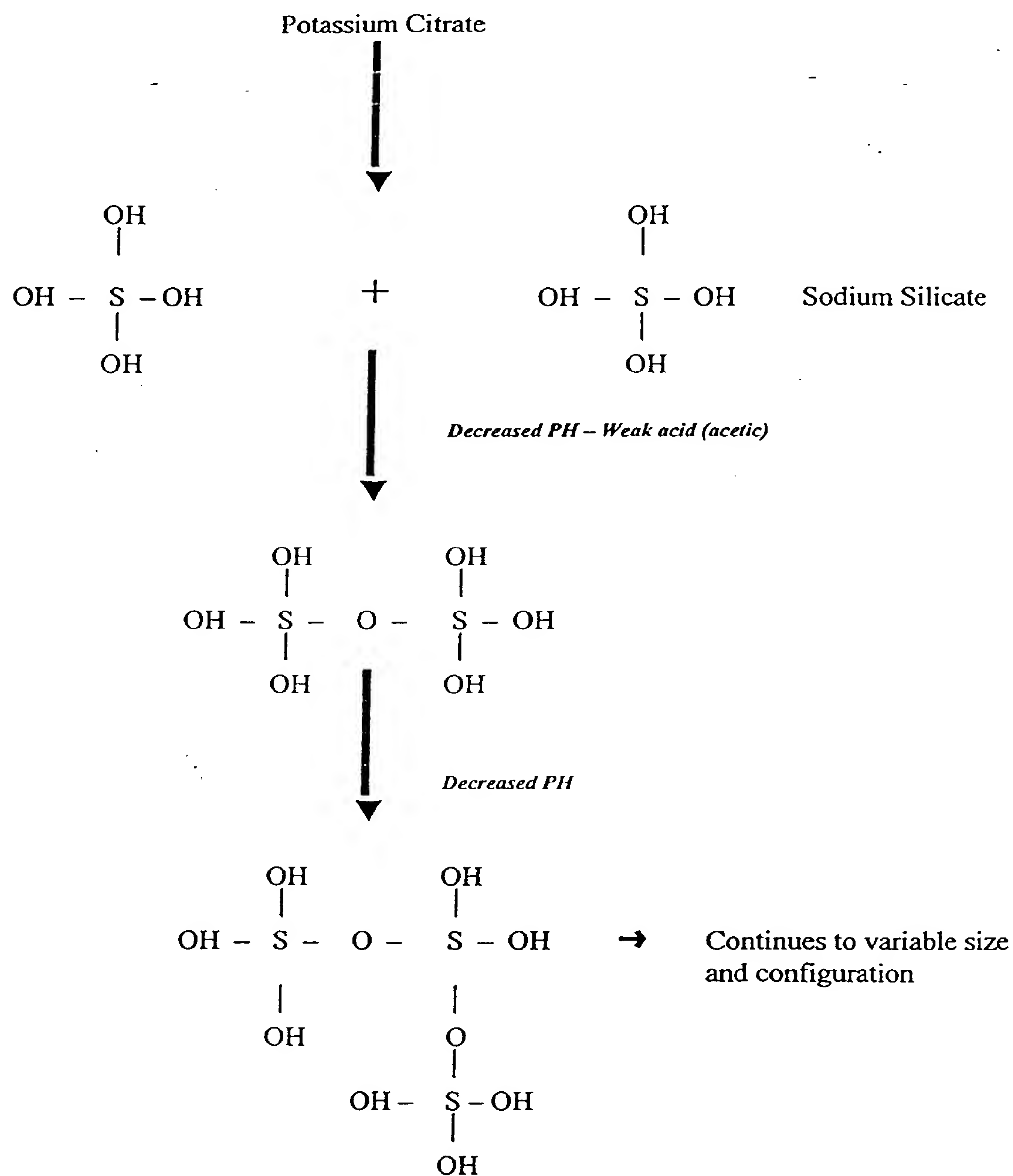


Fig. 1



**Fig. 2**

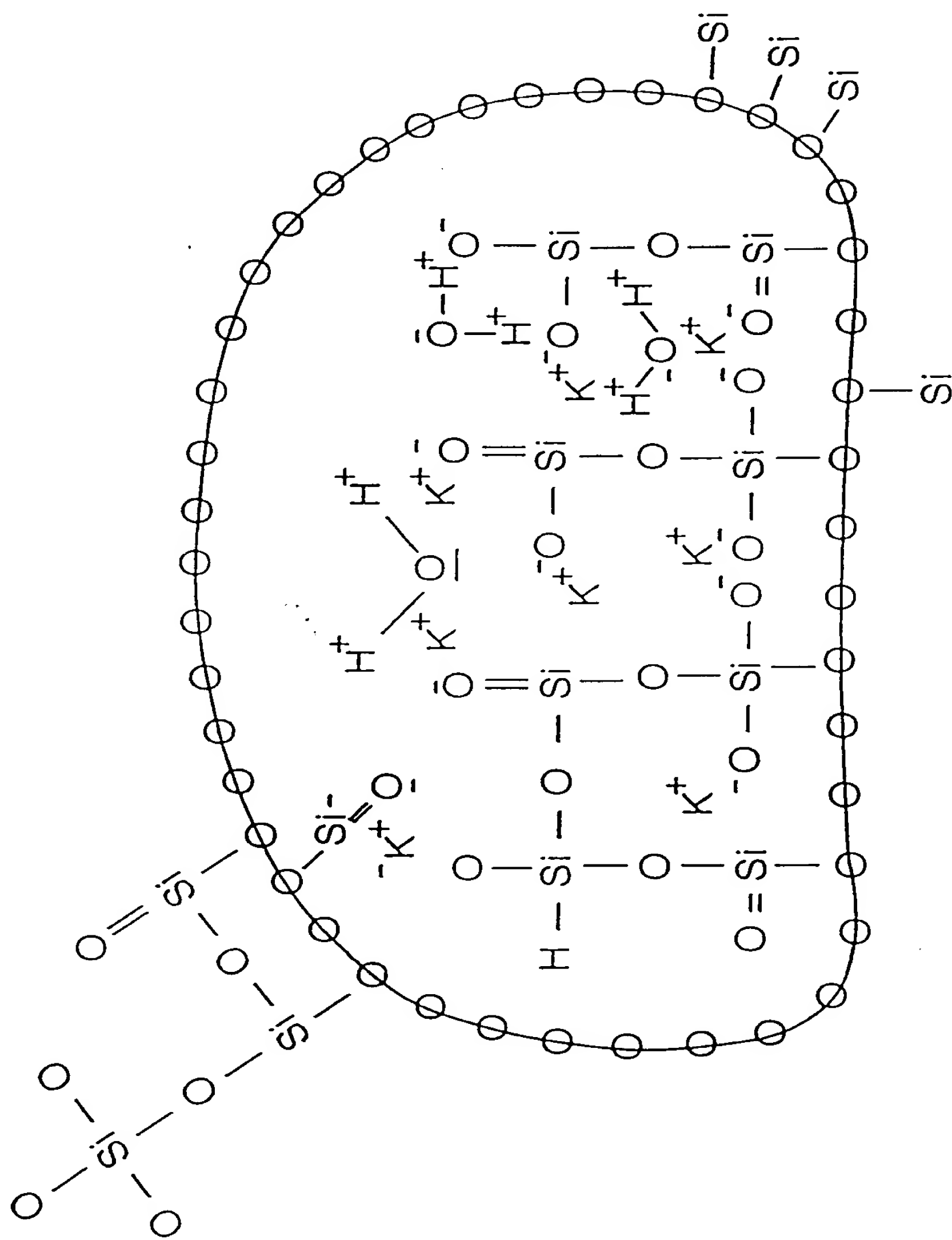


FIG. 3

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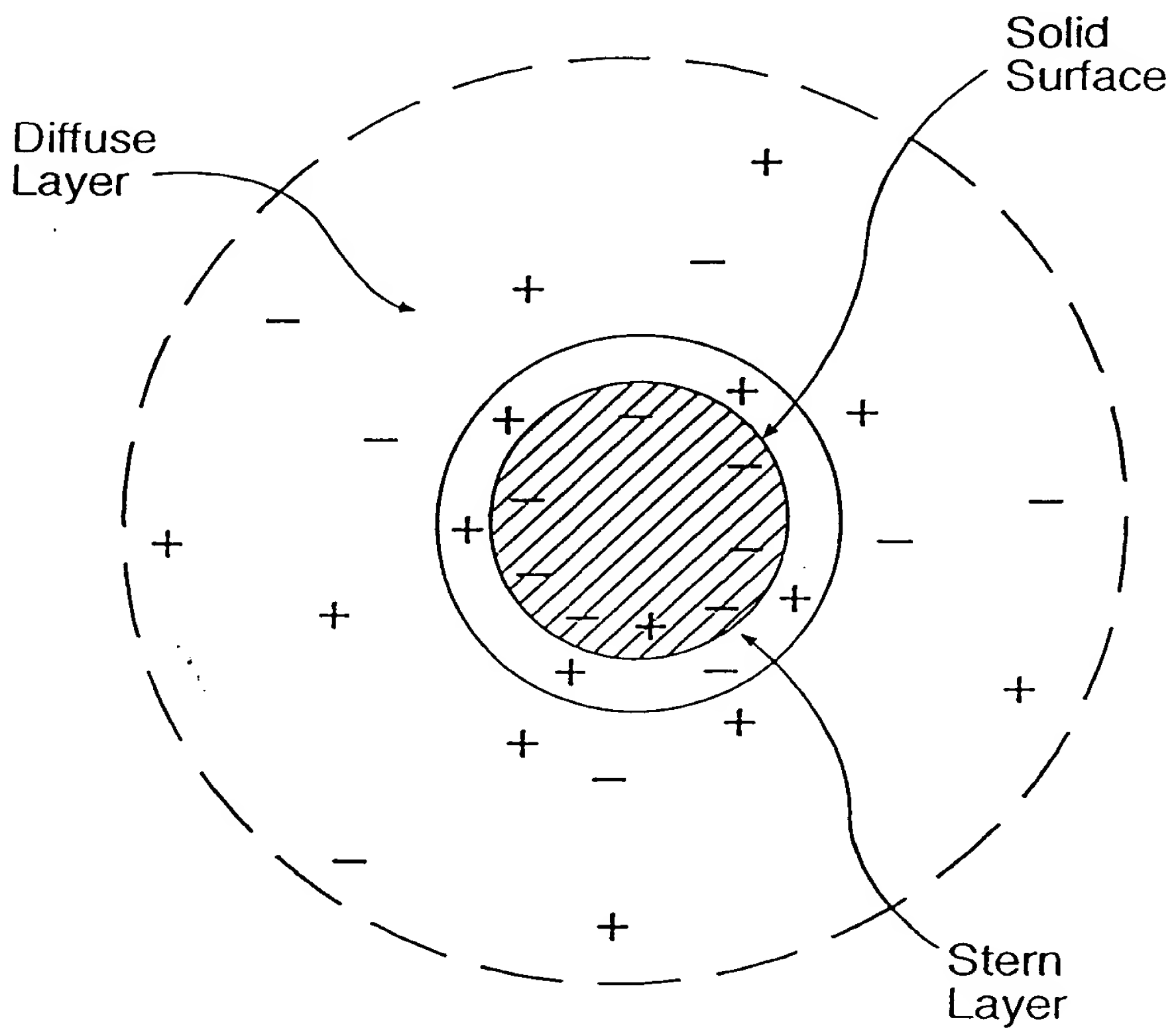


FIG. 4

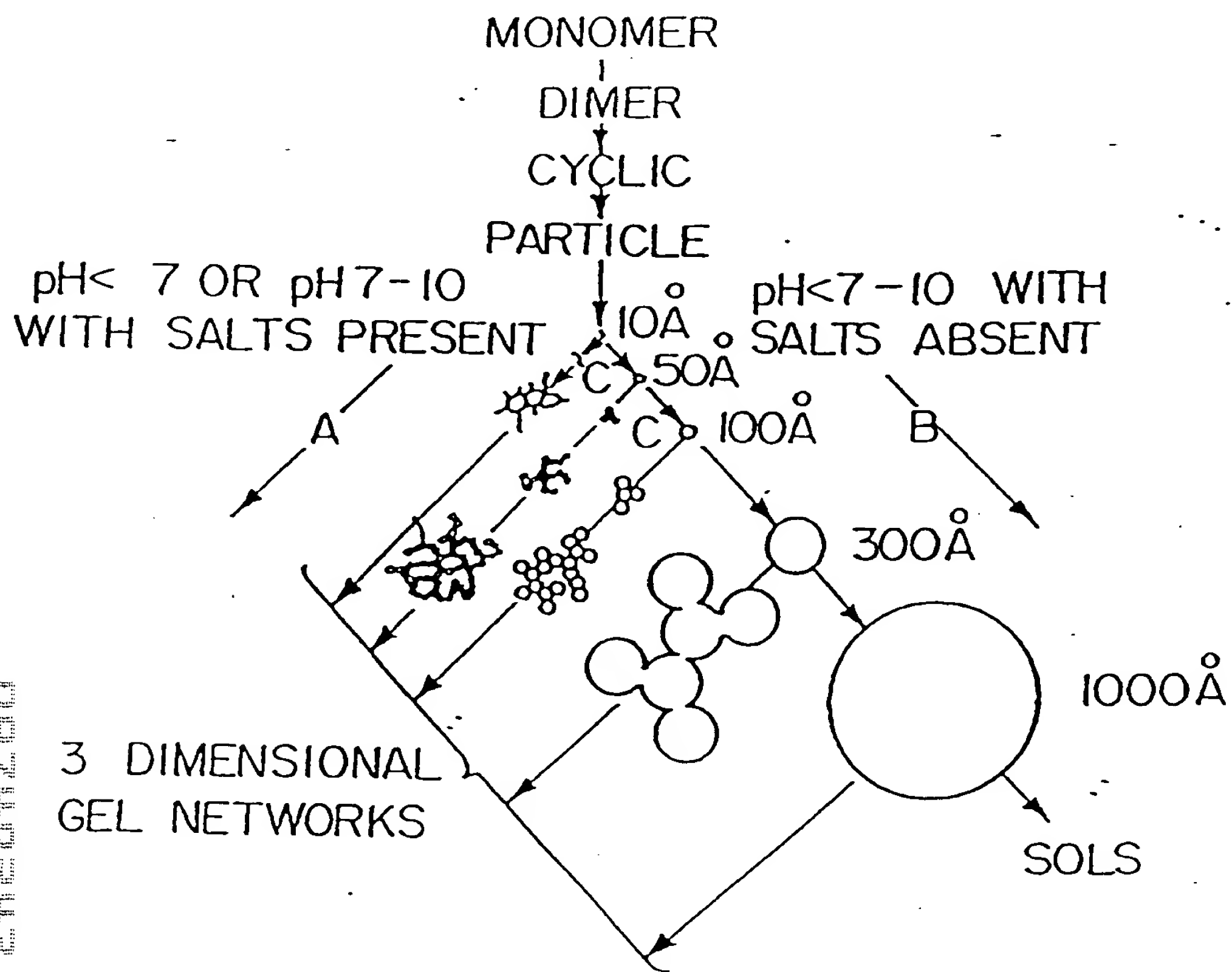


FIG. 5

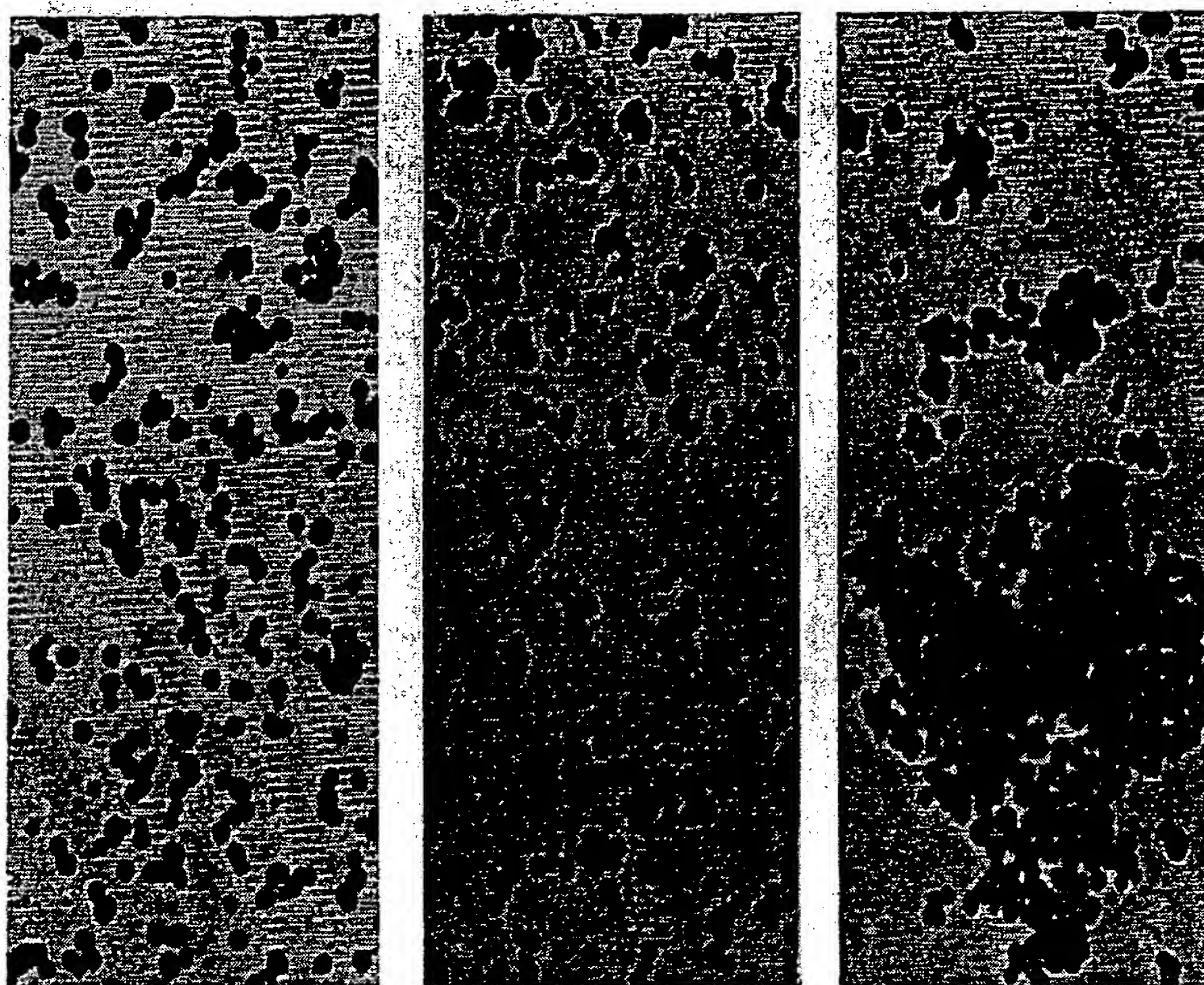


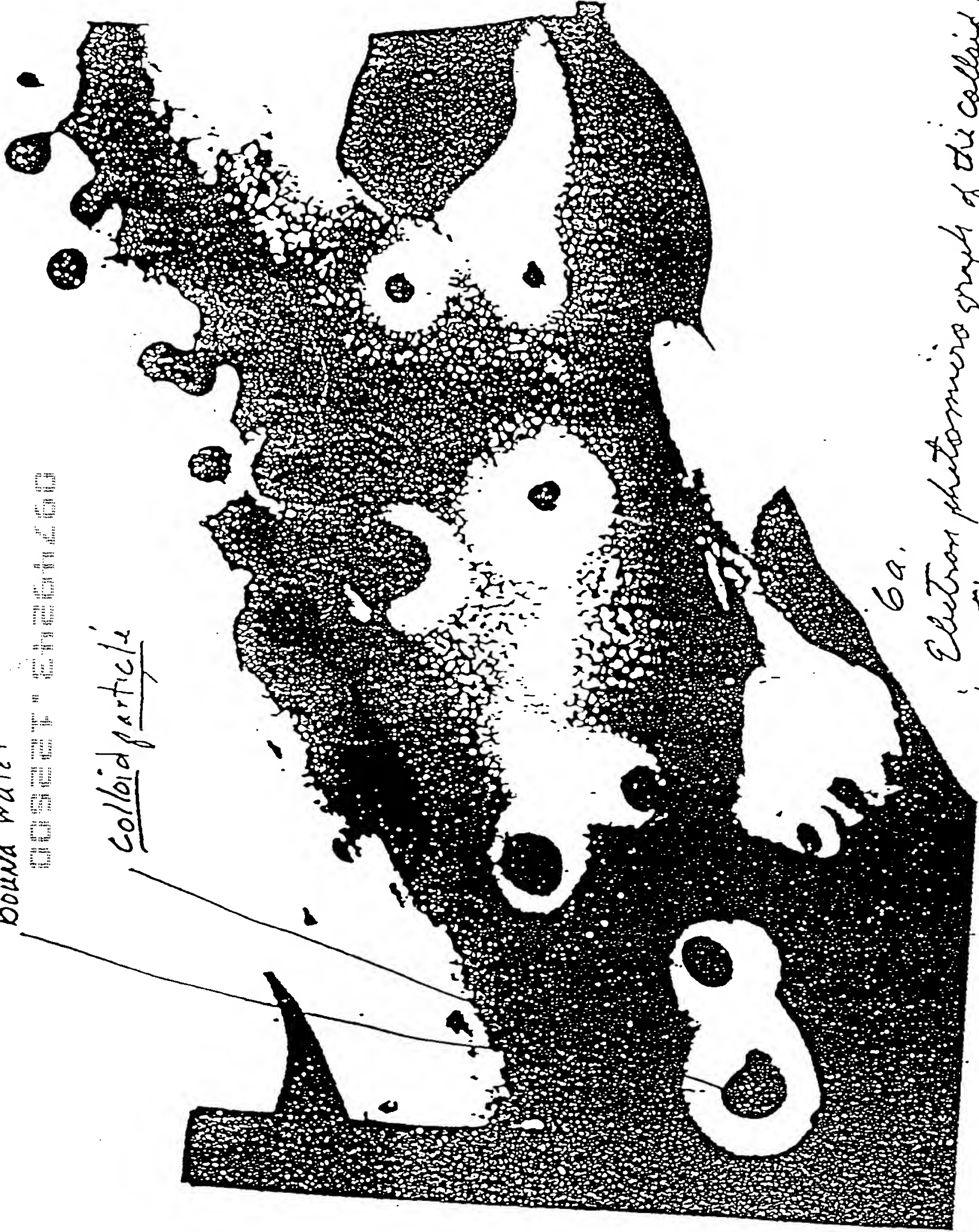
FIG. 26.—Electron micrographs showing stages of aggregation of 35 millimicron silica particles: *left*, colloidal aggregates; *center*, aggregates approaching colloidal size; *right*, supercolloidal aggregates or precipitate.

FIG. 6

bound water

003237 24264200

colloid particle

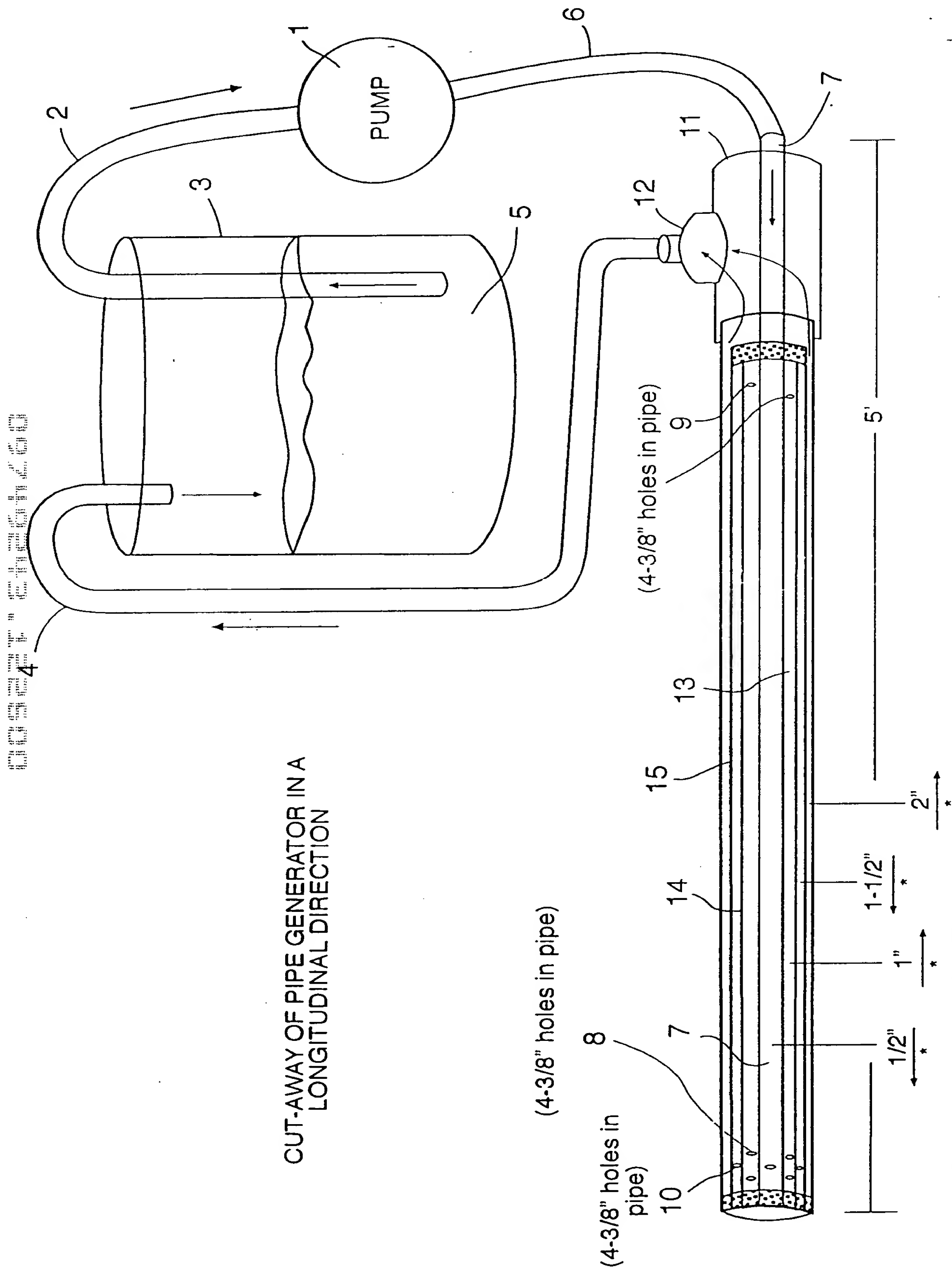


6a.

Electron photomicrograph of the colloid of the  
invention. 5a.

U.S. Pat. 4,044,268

# CUT-AWAY OF PIPE GENERATOR IN A LONGITUDINAL DIRECTION



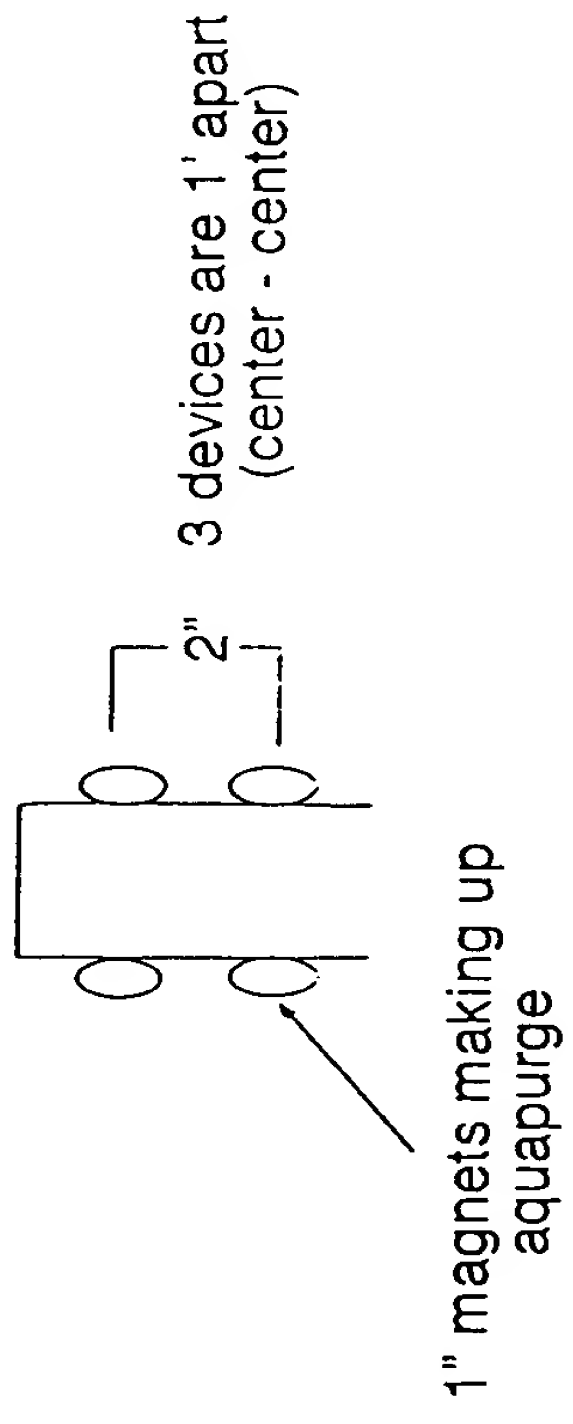
\*flow direction and pipe size

FIG. 7



003674-000000

SECTION OF GENERATOR



CUT-AWAY OF PIPE GENERATOR IN A LONGITUDINAL DIRECTION

(A)

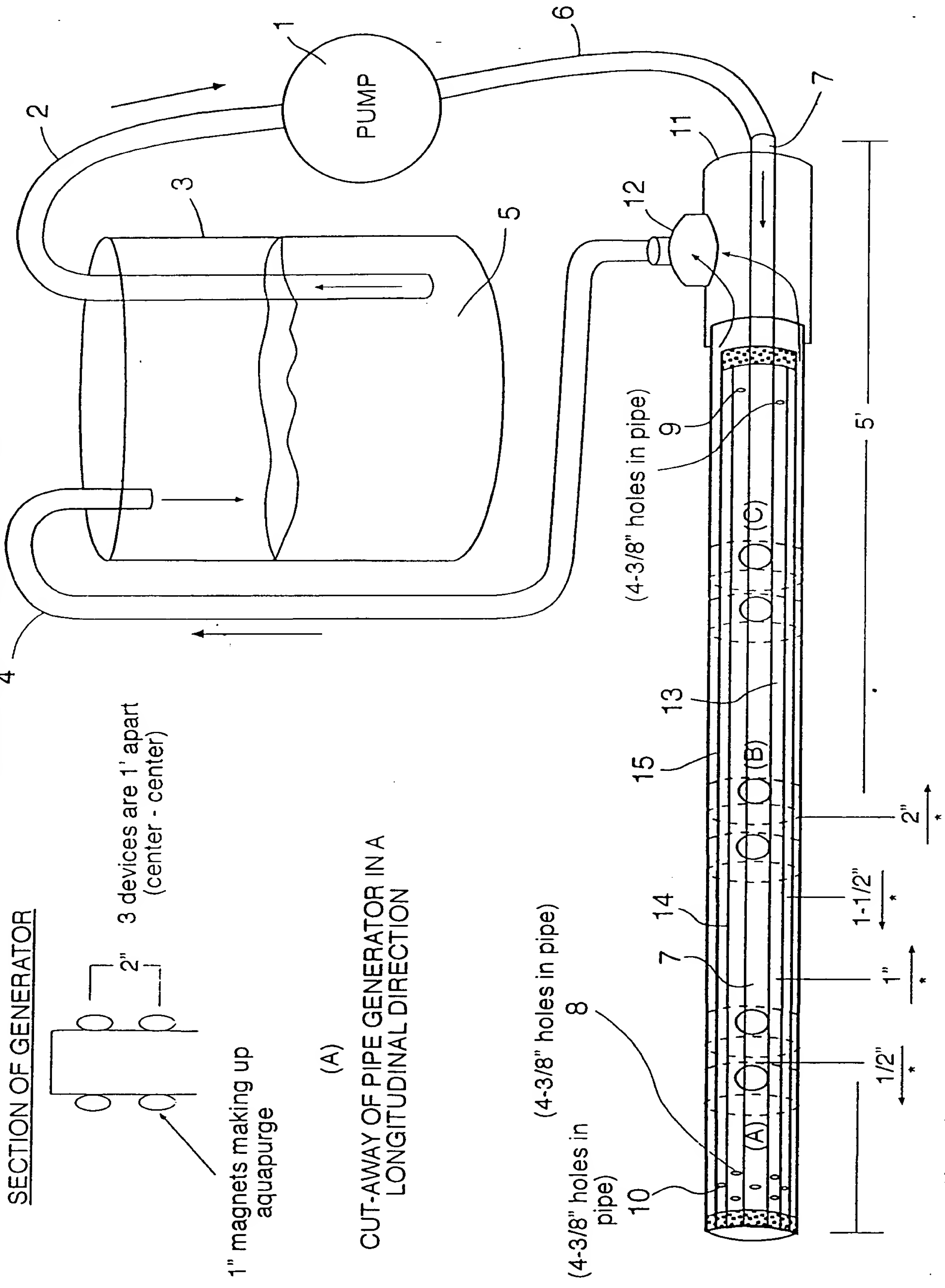
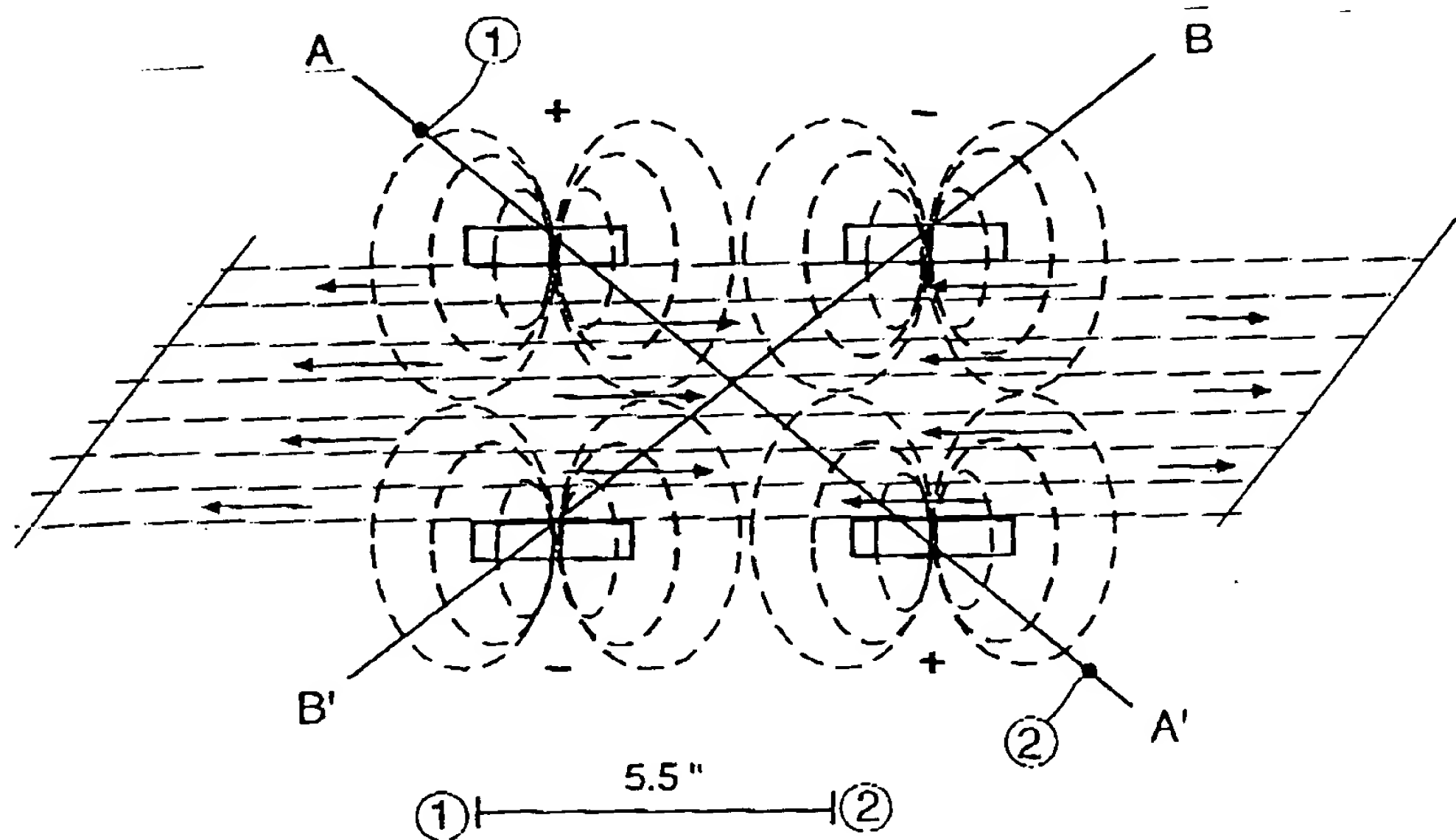
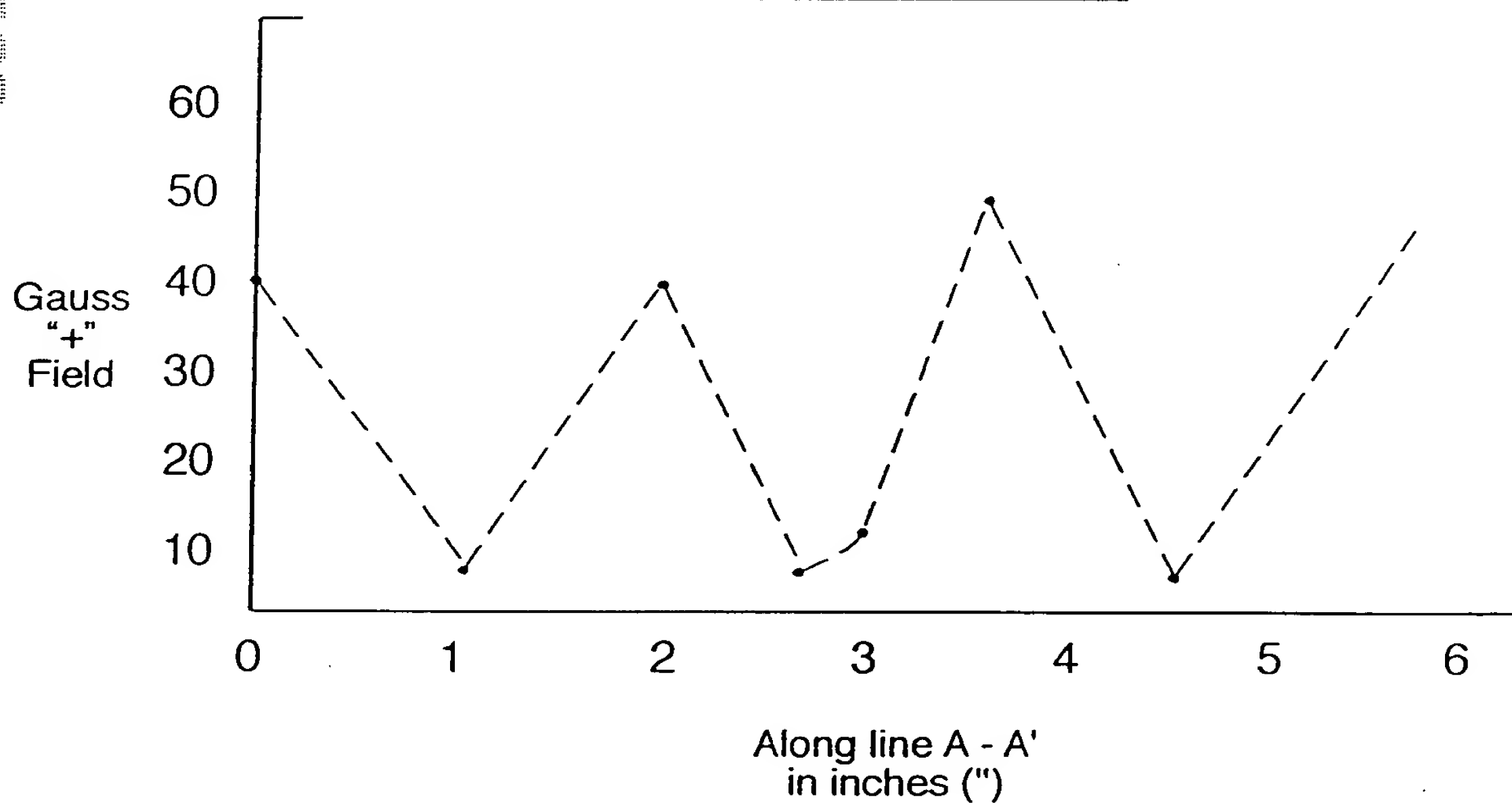


FIG. 8

Cross sectional view of counter current generator of the invention  
with lines A-A' and B-B' noted for measurement purposes.



Plot of Gradients in "z" axis



**FIG. 9**

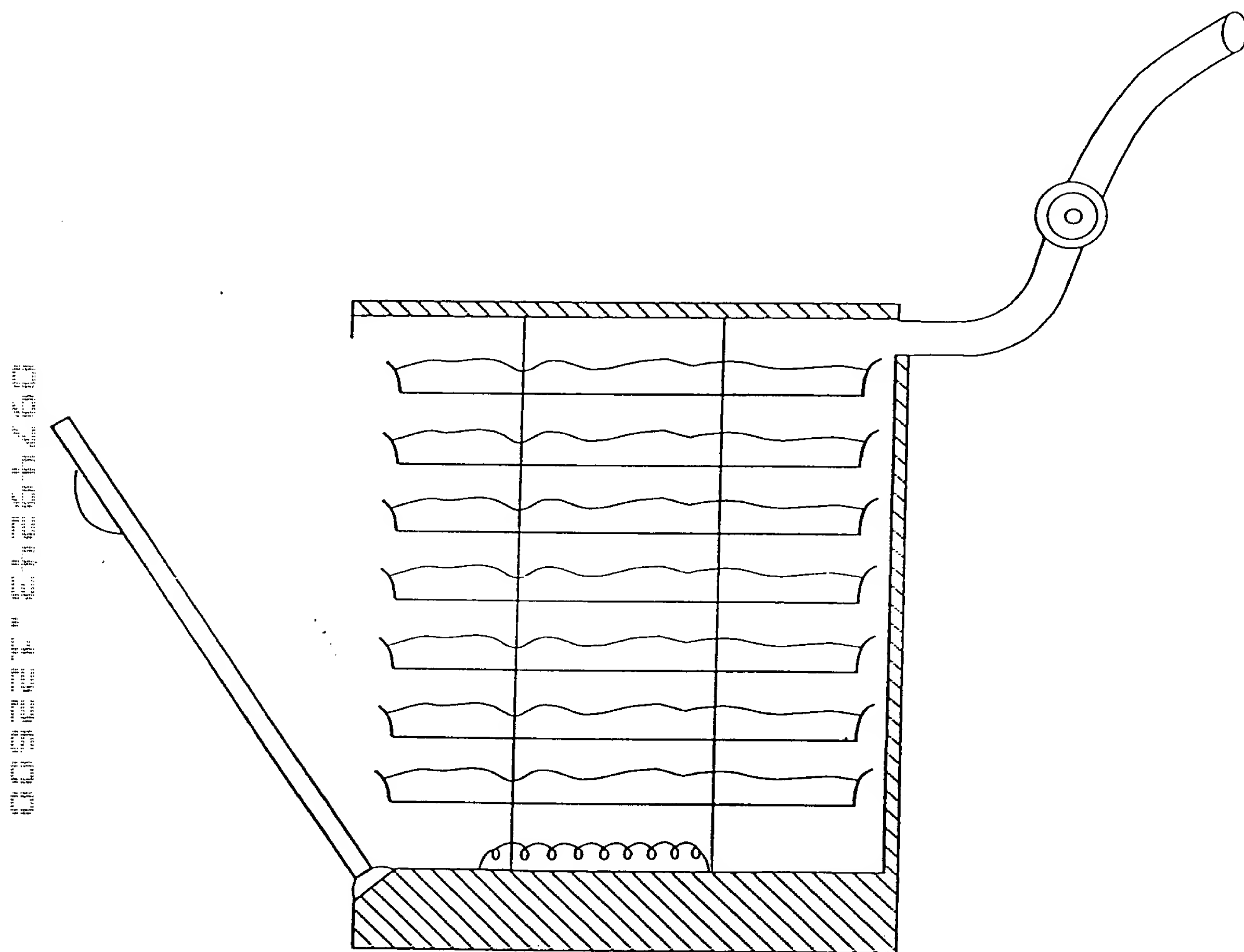


FIG. 10

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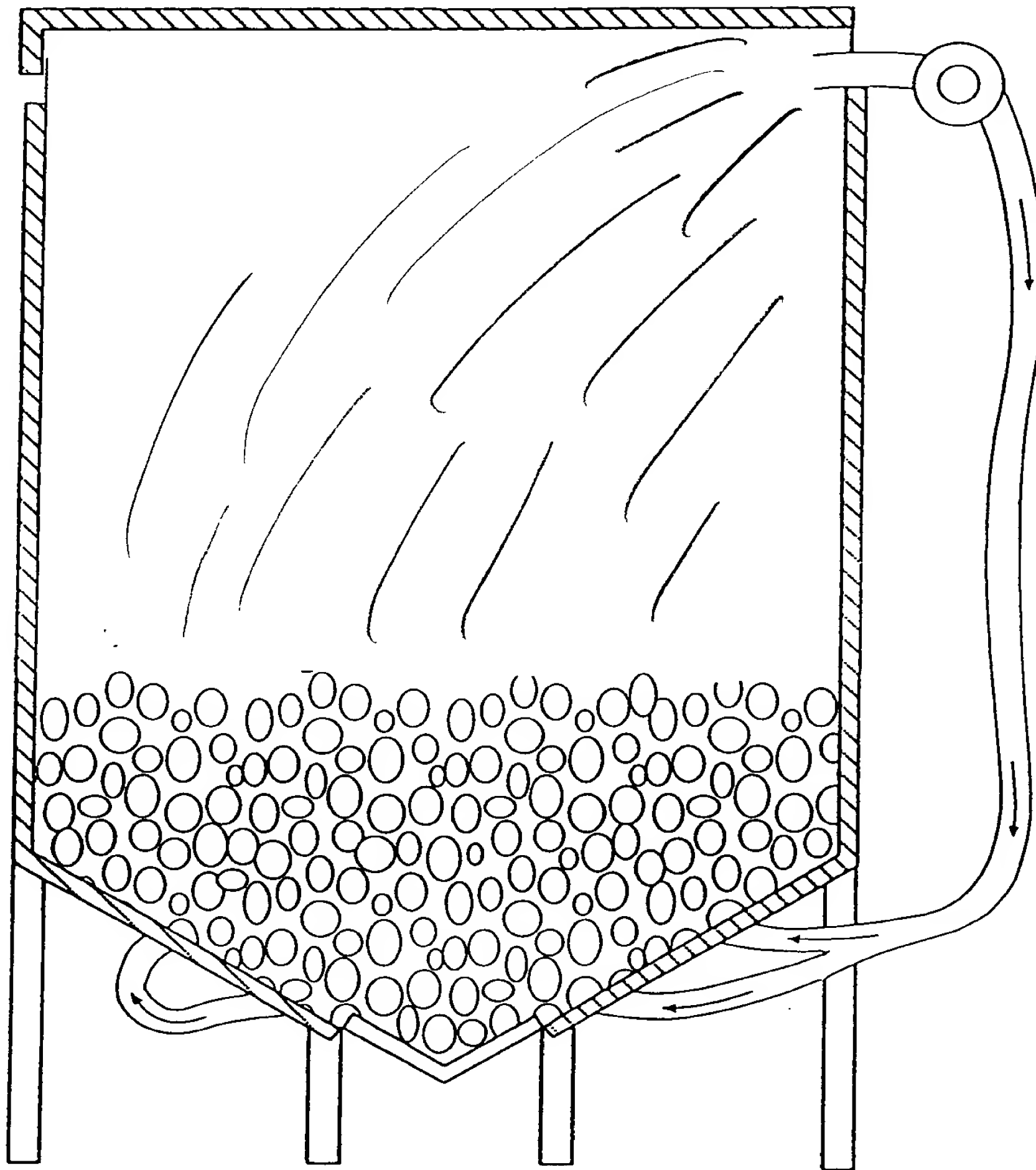


FIG. 11

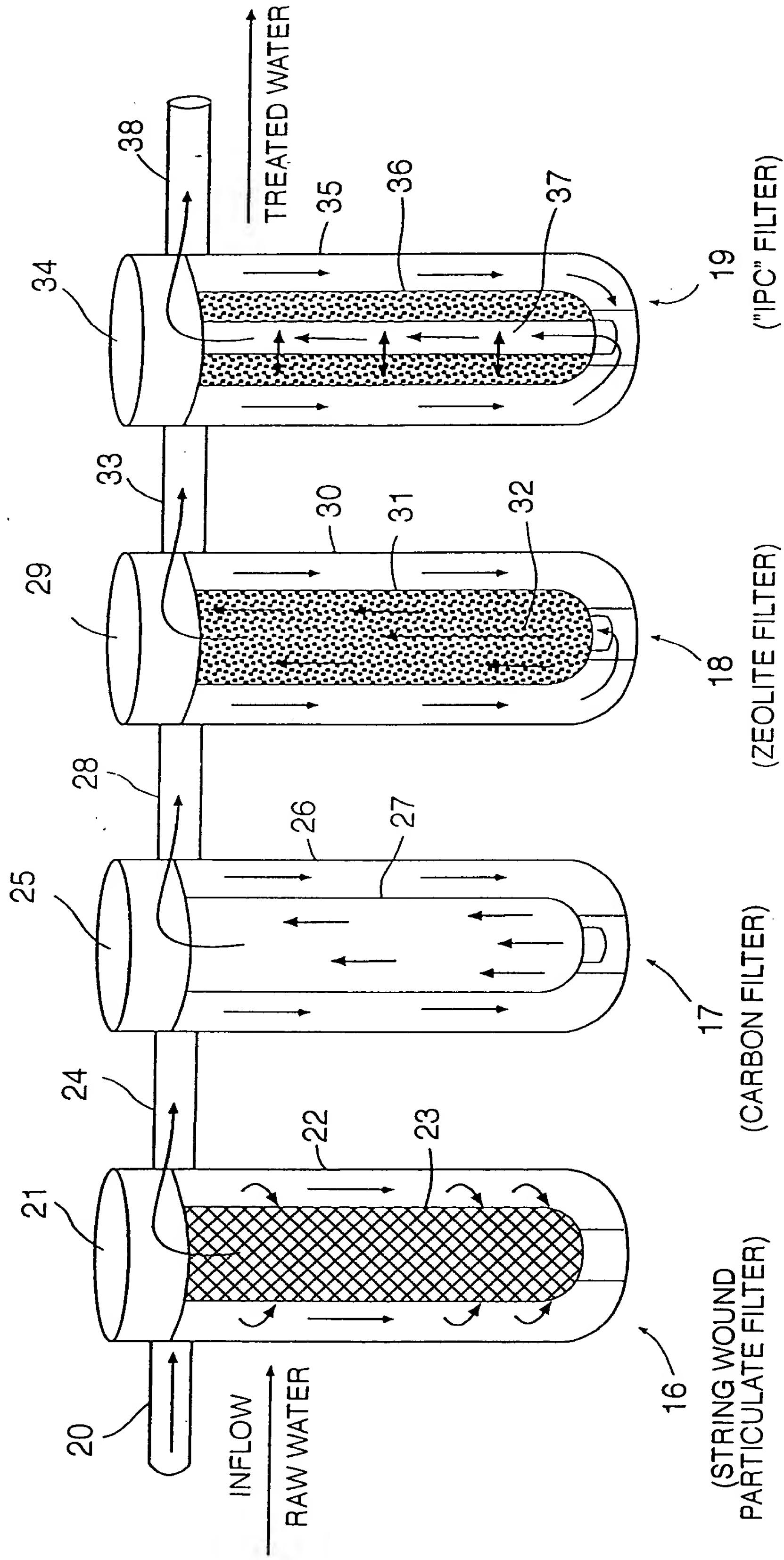


FIG. 12

Patented 1994

HOME WATER SOFTENER,  
WITH AUTOMATIC  
CONTROLLER FOR  
REGENERATION AND SERVICE

IPC CONVERSION

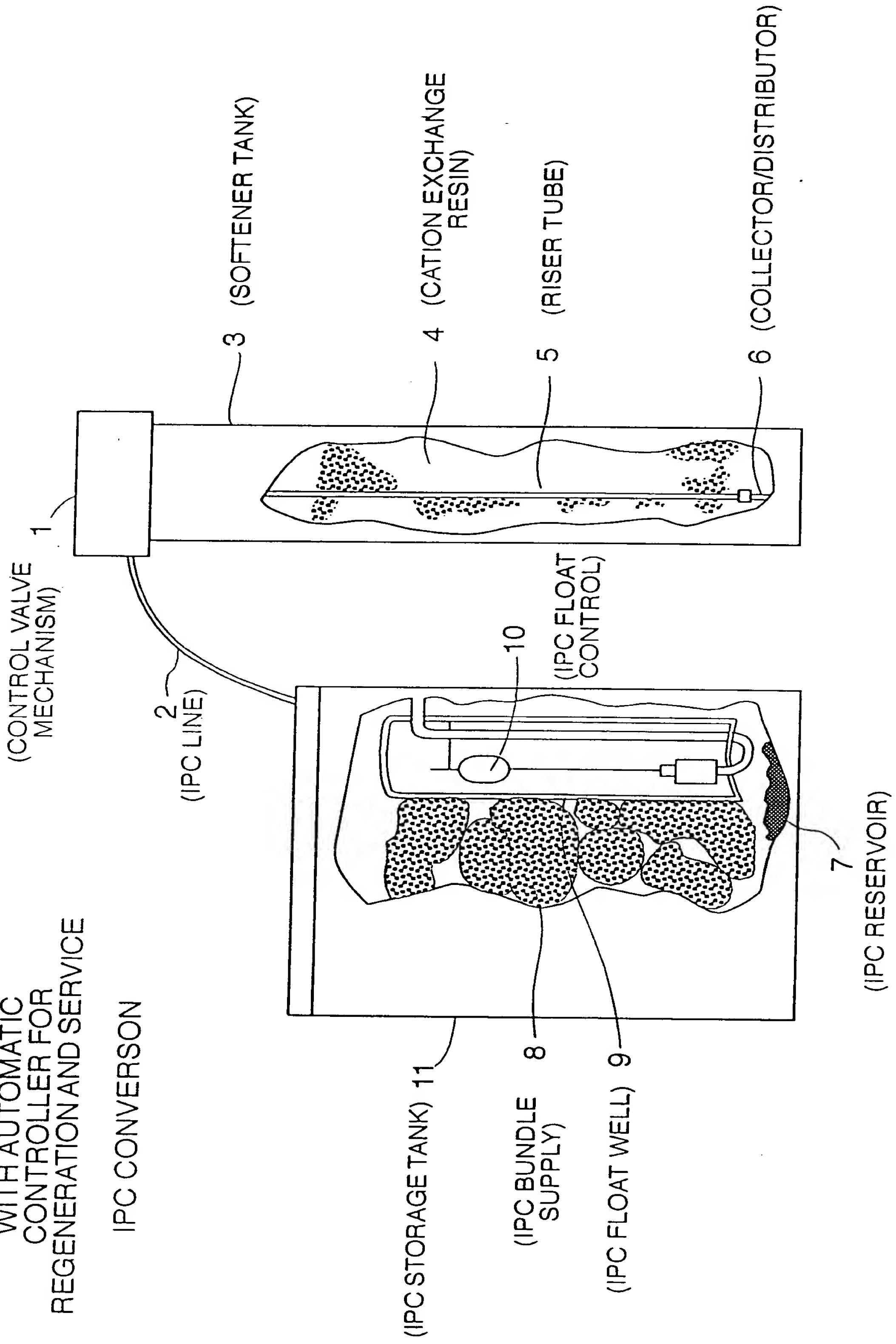
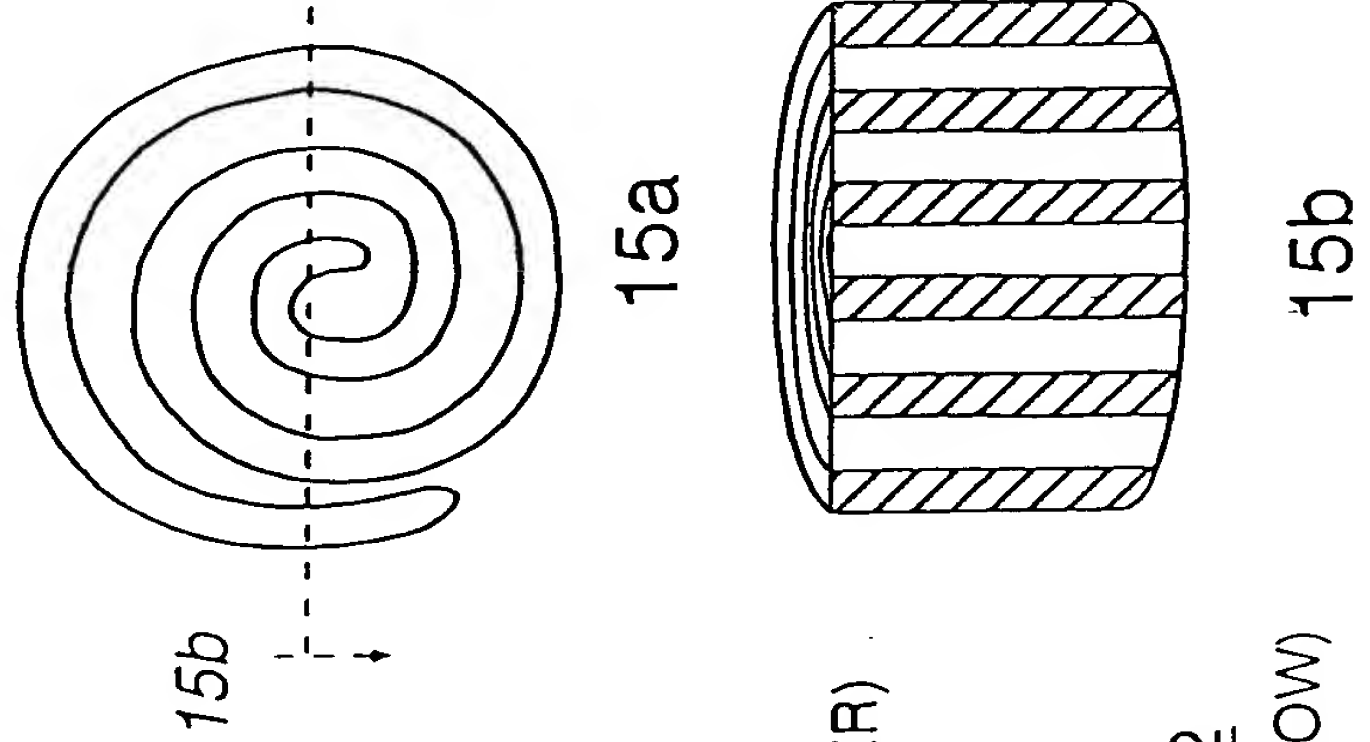


FIG. 14

CROSS SECTIONS  
(REGENERATION TANK)



(COUNTER CURRENT  
SCRUBBER)

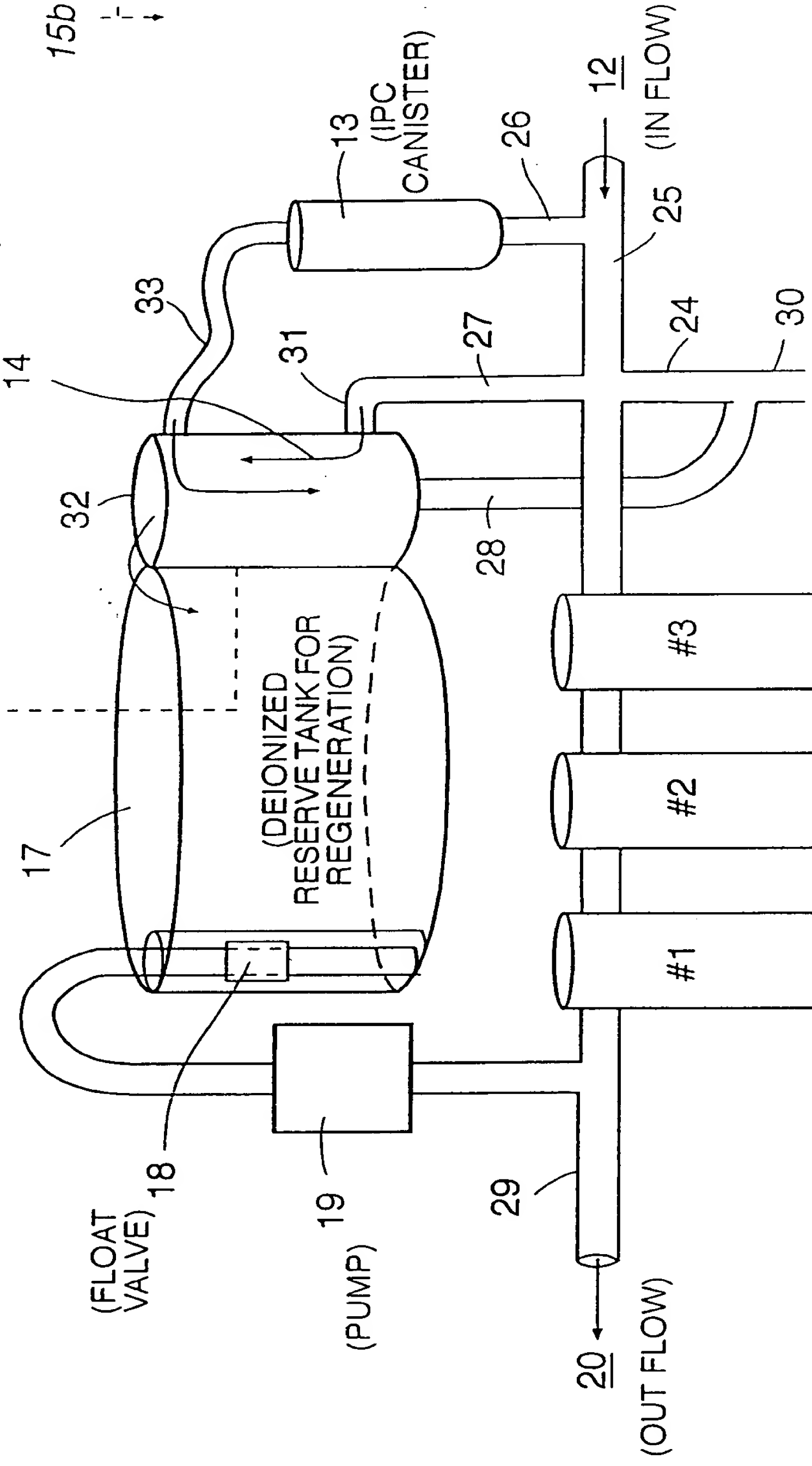


FIG. 15

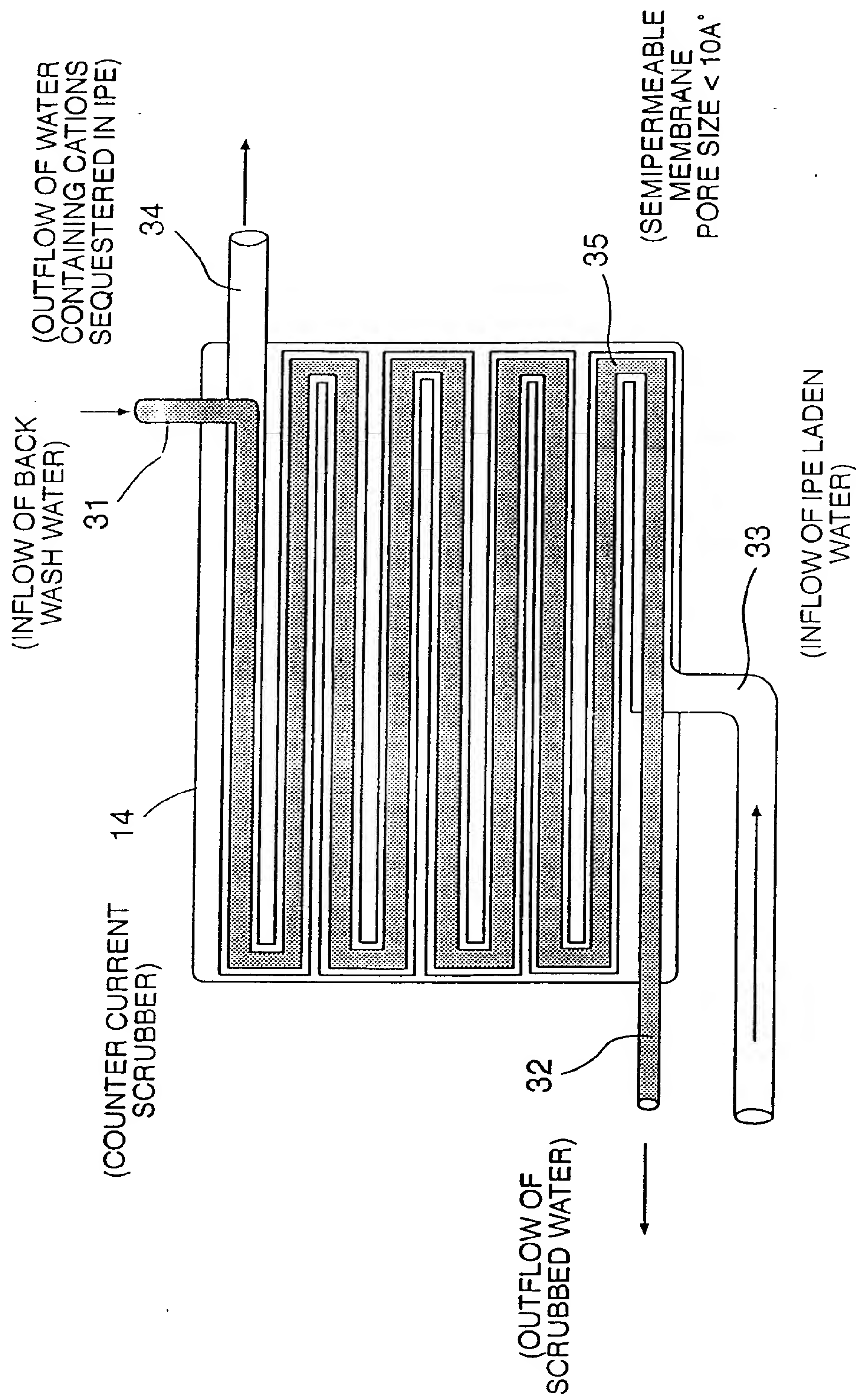


FIG. 16



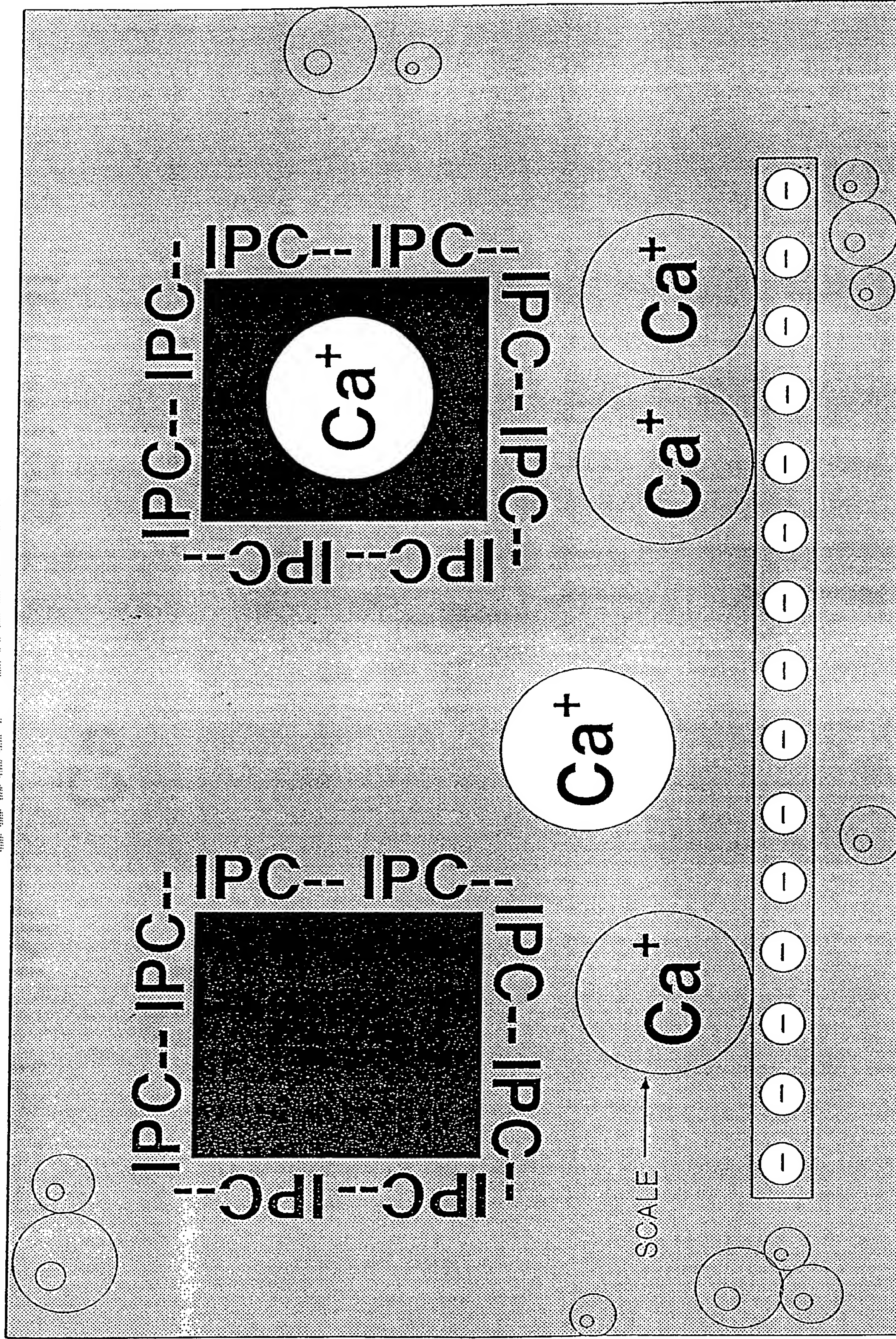


FIG. 17

The diagram illustrates the internal structure of a reverse osmosis membrane module. Key components and flow directions are labeled as follows:

- SALINE WATER**: Enters from the left and flows through the spacer channels.
- DIRECTION OF FLOW OF SALINE WATER**: Indicated by arrows pointing from left to right through the spacer.
- MEMBRANE**: The semi-permeable barrier that allows water to pass while rejecting brine.
- SPACER**: The support structure that maintains the spacing between the membranes.
- PERMEATE COLLECTOR**: The central tube that collects the purified water (permeate) passing through the membranes.
- DIRECTION OF FLOW OF PERMEATE**: Indicated by arrows pointing towards the central perforated tube.
- PERFORATED TUBE FOR COLLECTING PERMEATE**: The central tube with holes that collect the permeate.
- DIRECTION OF FLOW OF REJECT BRINE**: Indicated by arrows pointing from left to right, bypassing the membranes.
- REJECT BRINE**: The concentrated salt solution that is rejected by the membrane.
- LINE OF SEAM CONNECTING TWO MEMBRANES**: The point where two membrane sheets are joined.

**FIG. 18**



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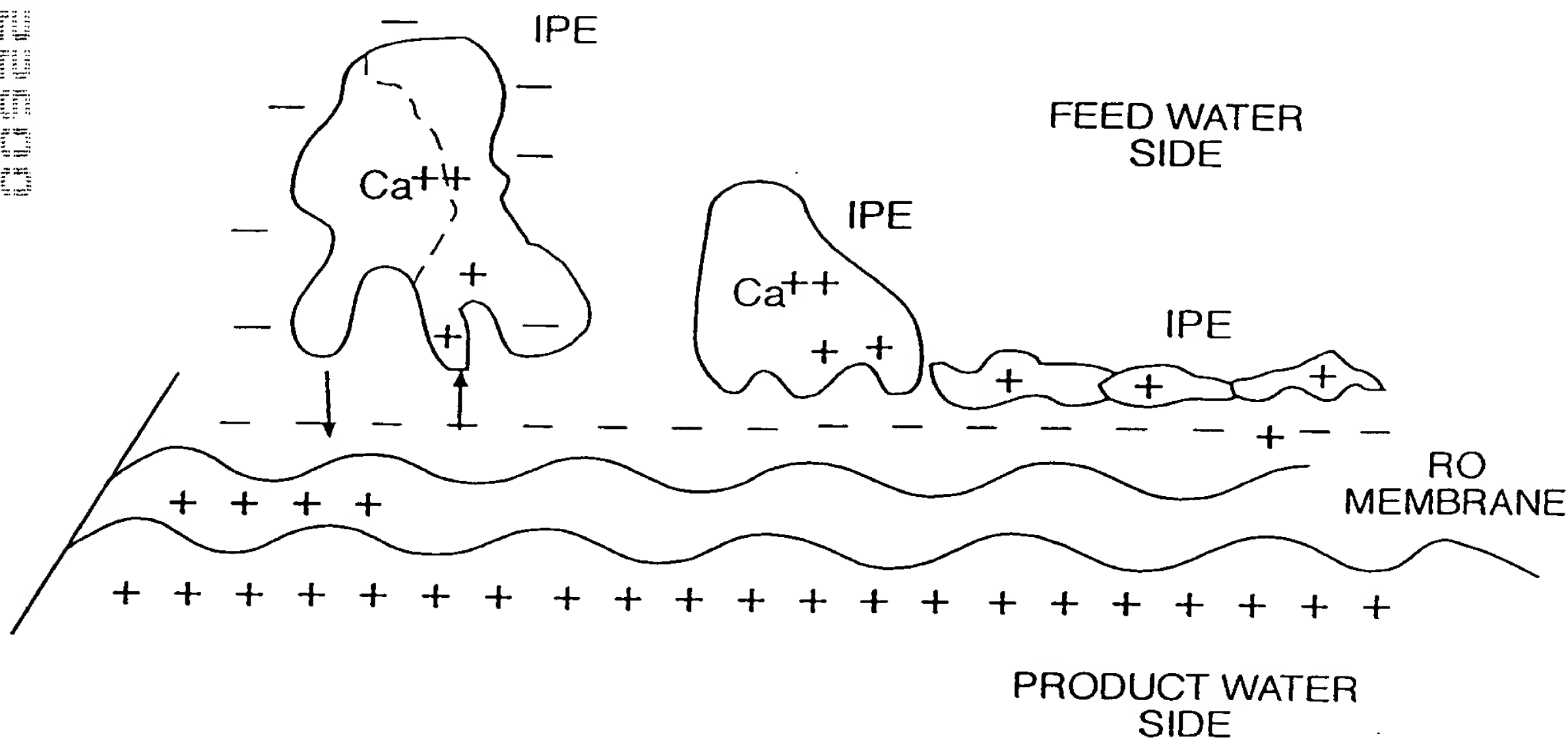
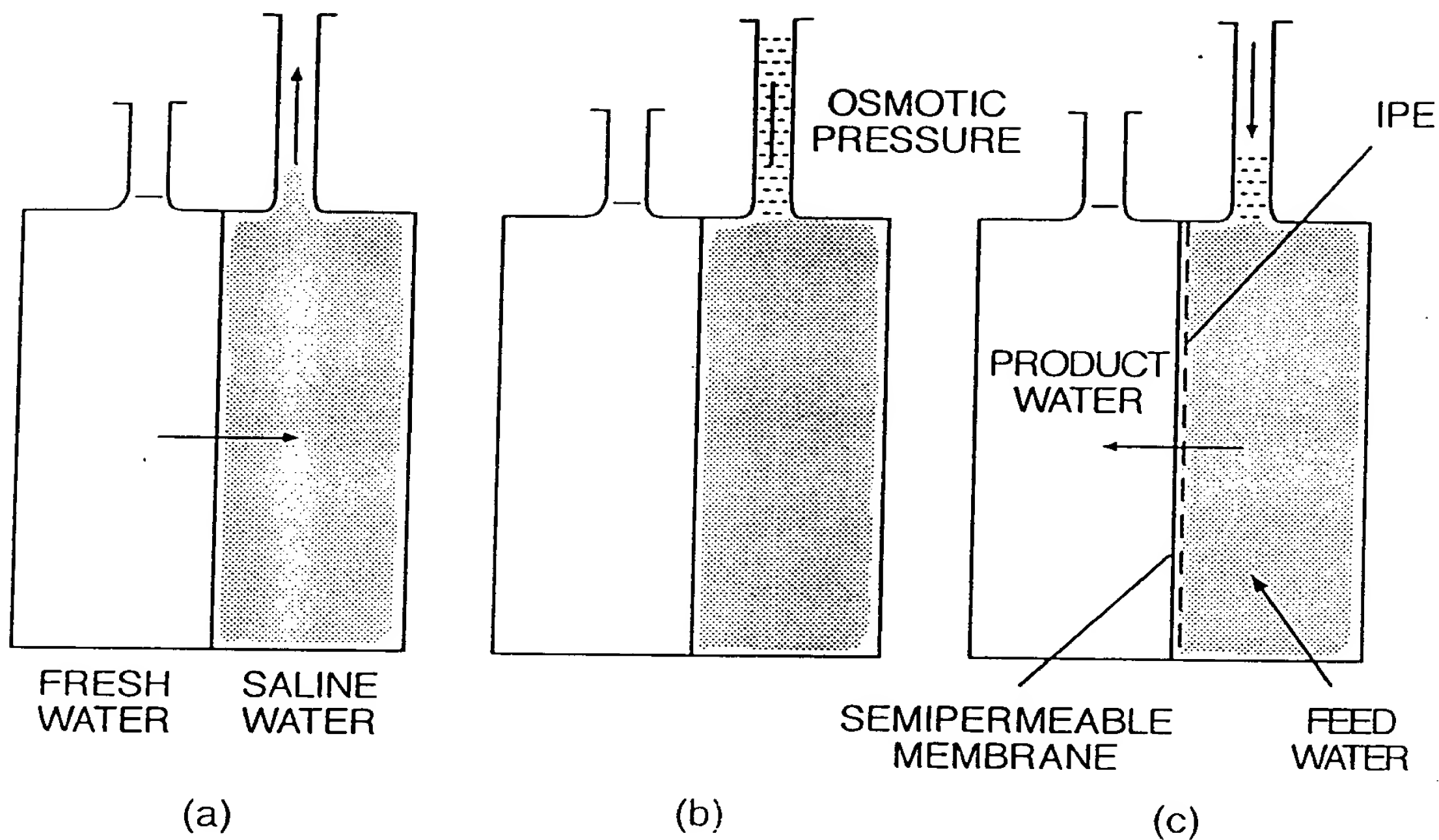


FIG. 19